

STRUCTURAL FRAMES

The Standard Specifications are revised as follows:

SECTION 802, AFTER LINE 322, DELETE AND INSERT AS FOLLOWS:

***(b) Structural Frames.** ~~The Contractor shall ensure the proper fit of the structure to end bent extensions and of the end bent extension to the foundation anchor bolts.~~ When erection of the structure has been started, it shall be completed the same day. The structure shall be loaded, to prevent vibration, by attaching signs or lighting supports the same day.*

An oxidation inhibitor in accordance with 802.07(b)4 shall be applied to all surfaces that mate with a dissimilar material.

Fasteners shall be tightened by turn-of-nut tightening, calibrated wrench tightening, or direct tension indicator tightening. The calibrated wrench shall be calibrated by an acceptable tension measuring device such as a Skidmore-Wilhelm.

The base plate bolt tightening shall be as follows:

- a. Lower nuts and washers shall be in full contact with the base plate,*
- b. The top nuts shall be tightened to one-sixth turn beyond snug fit,*
- c. The lower nuts shall be retightened to assure that full contact with the base plate has been maintained.*

Damage that is detrimental to the structural integrity of the frame or aesthetic appearance shall be repaired.

Field welding of aluminum shall be in accordance with 803. Field welding of steel shall be in accordance with 711.32.

The grounding connection shall be located 300 mm (12 in.) from the bottom of the support and shall be easily accessible from the structure manhole.

Traffic shall be maintained in accordance with 801.16 during installation.

*1. **Trusses.** When placed on blocks to produce the required camber, the truss sections shall fit together at the flange connections with a minimum gap of 1.5 mm (1/16 in.) on any flange assembly. The total of the gaps in any one connection shall not exceed 3 mm (1/8 in.). Gaps shall be shimmed with tapered shims before tightening the flange bolts.*

All signs and walkway brackets shall be placed as close to the brace points as possible. The Contractor shall verify that the dimensions are suitable for the type of fixture to be supplied.

2. Monotube. *The required camber shall be achieved in accordance with the manufacturer's recommendation as detailed on the shop drawings.*

3. Cantilever Arms. *Cantilever arms shall fit together at the flange connections between sections with a minimum gap of 1.5 mm (1/16 in.) on any flange assembly. The total of the gaps in any one connection shall not exceed 3 mm (1/8 in.).*

4. Bridge Brackets. *The location of the sign bracket may be shifted to avoid joints or stiffeners on the bridge. Before placing aluminum in contact with concrete, both the concrete and aluminum surfaces shall be coated with an aluminum-impregnated caulking compound. Where aluminum surfaces are to be placed in contact with steel, the steel surface shall be given one coat of zinc chromate paint and the aluminum surfaces shall be coated with an aluminum-impregnated caulking compound before placement. After the bolts have been tightened, the excess caulking compound shall be removed. All openings around the flanges shall be fully painted and shall be flush with the caulking compound.*
